

Executive Summary for Informal Discussion

This executive summary provides an overview of the major changes included in the draft copy of the new circular DEQ-4 and is being provided to facilitate informal discussion as DEQ prepares the new circular for formal notice and comment. The new circular is currently in draft form, and DEQ will make changes to it as the agency prepares it for formal notice and comment. DEQ encourages stakeholder participation over the coming weeks and may incorporate suggestions into the draft circular. Please note that comments provided during this informal review will not be part of the official record of the formal rulemaking. Following informal stakeholder review and discussion, a full description of the final proposed changes will be included with the statement of reasonable necessity in the formal notice of proposed rulemaking.

Chapter 1 – INTRODUCTION

- 1.1 Applicability
Removed discussion regarding the Subdivision program at DEQ, and the description of different wastewater treatment systems. This information is not relevant to a design circular. Added language regarding applicability of DEQ 4 to both 76-4, MCA projects and 50-2, MCA projects.
- 1.1.2 Allowable Systems and Applicability includes information relocated from ARM 17.36.916 and ARM 17.36.321. Other specific requirements for these “replacement-only” systems remain in ARM 17.36.916 or are included in the individual system sub-sections in Chapter 8.
- 1.1.3 Requirements/considerations for existing systems was relocated from ARM 17.36.327 and ARM 17.36.913 (4) to DEQ 4.
- 1.1.4 Criteria for deviations – no substantial changes.
- 1.2 Definitions have not been updated in this draft.

Chapter 2 – SITE CONDITIONS.

Reorganized chapter 2 into subsections and included language from the rule:

- 2.1 Site evaluation provides standards that apply to the location and condition of allowable sites. .
 - Modified the application rates table 2.1-1 to include all the descriptive textures in the NRCS soil texture triangle, sand-lining and pressure dosing were added to more soil types,
 - Added language regarding application rates.
 - Level 2 treatment was added for systems at sites in areas that have been identified as having increasing nitrate levels.
 - Added (d) Systems installed soils with percolation rates faster than 1 mpi must be pressure dosed, sand lined and include level 2 treatment.
 - Added footnote k to allow use of ANSI/NSF 40 systems (Presby) without pressure dosing, if certification testing was conducted without pressure dosing.
- 2.2 Setbacks Table 2.2-1 - Setback table was moved from ARM 17.36.323 and ARM 17.36.918 and modified to clarify that setbacks are to slopes located down-gradient of wastewater systems, omitted footnote regarding setback between drinking water wells and surface water (addressed in DEQ 20 and DEQ 3), added pressure testing requirements for sealed components located within 100 ft. of a floodplain. Footnote 1 was modified match ARM 17.36.918 and allow system components contained in a closed tank. Footnote 13 was added which details requirements for sealed components proposed in the 100-year floodplain.
- 2.3.1 Site Modifications to describe how and when modifying a site may occur to make it adequate to site a sewage system. Added the requirement that a letter of verification indicating that the site meets minimum requirements of this Circular after the fill has been completed. To match the requirement for use of cut-systems.

Chapter 3 – WASTEWATER

- 3.2.1 Changed the statement “The reviewing authority *may require* that nonresidential establishments demonstrate that the wastewater meets residential strength standards or complies with the requirements of Circular DEQ 4 Page 26 of 159 2013 Edition Subchapter 3.2” to the requirement that “Nonresidential establishments *must demonstrate* that wastewater discharged from their facilities meets residential strength standards or complies with the requirements of this subchapter prior to disposal in a subsurface wastewater treatment system.” Tables 3.1-1 and 3.1-2 modified to omit column listing flow rate ranges and updated to reflect current source types. Added footnote specifying that industrial wastes are prohibited from subsurface disposal without a discharge permit.
- 3.2.2 Added the concentration of total nitrogen (50 mg/L) to the description of residential strength wastewater.
- 3.2.2.1 Added a section to specify effluent sampling.

Chapter 4 – COLLECTION, PUMPING, AND EFFLUENT DISTRIBUTION SYSTEMS

- 4.2.3.3. Modified the intent of dosing a wastewater system to read: The intent of dosing is the periodic discharge of a determined volume of effluent to a drainfield to provide cycles of wetting and resting/re-aeration with each dose and uniform distribution of effluent to a subsurface wastewater treatment system”, to provide a better description of the terms dosing, gravity dosing, and pressure dosing.

Chapter 5 – PRIMARY TREATMENT

Omitted reference to NSF certification and added performance specs for effluent filters. In Section 5.1.7.1.a.1 add “or ASTM C595 cement containing less than 8% tricalcium aluminates.”

Chapter 6 – SOIL ABSORPTION SYSTEMS

- 6.1 Standard Absorption Trenches
 - 6.1.4 Sizing of the Absorption System. Added “The application rate must be selected based on the most restrictive soil texture located within four feet below the infiltrative surface determined through soil test pit evaluations or percolation tests.”
- 6.5 Sand-lined Absorption Trenches
 - 6.5.2.1. Corrected the sand type from ‘fine to medium or loamy sand’ to ‘fine to medium or sandy loam’.
- 6.7 Elevated Sand Mounds
 - 6.7.4. General - Changed criteria to allow elevated sand mounds constructed in accordance with this circular, to include the depth of the key as part of the separation distance between infiltrative surface and limiting layer if ground water is conducted to confirm that shallow groundwater is not within 4 ft. of the natural ground surface.
- 6.8 Evapotranspiration absorption and evapotranspiration systems

Added the requirement that that percolation testing is required for both ET and ETA systems.
- 6.10 Gray Water
 - 6.10.1.1 Added general requirements from ARM 17.36.319 and ARM 17.36.919.
- 6.11 Move absorption beds to chapter 8.

Chapter 7 – ADVANCED WASTEWATER TREATMENT SYSTEMS

7.1. Recirculating Trickling Media Filters

7.1.13 Created a new section for Operations and Maintenance, Certification, and As-builts requirements.

7.2 Intermittent Sand Filters

7.2.2.5 Removal of specific liner materials; addition of manufacturers testing requirements.

7.2 Recirculating Sand Filters

7.3.2.1 Removal of specific liner materials; addition of manufacturers testing requirements.

7.4 Aerobic Wastewater Treatment Units

7.4.1 Revised test to maintain consistency with NSF/ANSI 40.

7.4.5.1 Added requirements to the alarm section to prevent discharge of partially treated wastewater.

Chapter 8 – MISCELLANEOUS

8.1. Holding tanks

8.1.2.7 Maintenance plan for holding tanks added

8.3 Unsealed Pit Privy

8.3.1 Removed “seasonal use” and specified these may only serve structures that have no piped water.

8.5 Absorption Beds

8.5.1 Copied from previous DEQ-4, Section 6.11.

RELOCATION SUMMARY TABLE

Proposed Circular DEQ-4	Existing Rule/ Existing DEQ4	Substantive Change
1.1.1		
1.1.2	ARM 17.36.321 (3) (a)-(g) & (4)	
1.1.2.1	ARM 17.36.321(3)(g)(i) & (ii)	
1.1.2.2	ARM 17.36.916	
1.1.2.3	ARM 17.36.321(4)	
1.1.3.1	ARM 17.36.327 (1)-(5) ARM 17.36.913(4)	Copied entire section, except existing holding tanks slightly modified in last paragraph 1.1.3.1
1.1.4	1.1.4	reformatted
1.2		Definitions remain, added reference to additional definitions in ARM
2.1.2		Added list summarizing following subchapters
2.1.2.2	2.1.9	Removed “any person”
2.1.3	2.1.6, ARM 17.36.322(6), ARM 17.36.320(4)	
2.1.4	2.1.3, ARM 17.36.106(2)(a)	clarified supplemental information may be provided, soil test pits are required.

2.1.4.1	2.1.4 (first sentence), copied list	Replaced “stoniness” with coarse fragment percentages, removed H. plasticity
2.1.4.3	2.1.4	Added augers and shelby tube samplers cannot be used for test pits.
2.1.4.4	ARM 17.36.325(3)(c), ARM 17.36.325(3)(b)	
2.1.4.5	ARM 17.36.325(2), 2.1.8.4, ARM 17.36.320 (3)	
2.1.5	2.1.3	Noted NRCS data not required in application
2.1.7		A couple textures added to table, additions to table notes
2.1.8.1	ARM 17.36.322 (7)	
2.1.8.2	ARM 17.36.322 (1)	
2.1.8.3	ARM 17.36.322 (2)	
2.1.9	ARM 17.36.324 (1), (2)	
2.1.10	ARM 17.36.322 (3)	
2.1.11	ARM 17.36.322 (4)	
2.1.12	ARM 17.36.322 (4)	
2.1.13	2.1.8.3	
2.2 Setback Table	ARM 17.36.323 (1)	Some additions and deletions
3.1.4	ARM 17.36.320 (2)	
6.10.1.1	ARM 17.36.319 (4)(a)- (g)	
6.10.2	ARM 17.36.319 (8)	
6.10.3	ARM 17.36.319 (7)	
6.10.4.1	ARM 17.36.319(6)	
6.10.4.18	ARM 17.36.319 (5)	
8.1.2.7	ARM 17.36.916(5)(c)(iii)	
8.2.1	ARM 17.36.321 (5)	
8.3.1	ARM 17.36.916 (7)	